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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,829	02/08/2002	Gen Sato	020143	9549
23850	7590	10/31/2003	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			JONES, JUDSON	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/067,829	SATO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Judson H. Jones	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 1-4 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |                                                                                                                   |                                                                             |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) ____.   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>051502</u> . | 6) <input type="checkbox"/> Other.                                          |

## **DETAILED ACTION**

### ***Claim Objections***

The last four lines of claim 1 are unclear. The first part “a solenoid energizing means for energizing said solenoid means for a time period” is clear. The next phrase “in which the seat is being rocked” refers back to said time period. “Traveling a distance” is not clear. Traveling appears to be an incorrect verb tense, with travels being more suitable. Then a distance would refer to a distance traveled during said time period. The last section “that is a product of said measured rocking motion and said measured extent of damping factor of amplitude” is not clear. From the rules of English grammar, the phrase could either refer back to said time period or said distance. Said rocking motion refers back to lines 7 and 8 of the claim, to “an amplitude measuring means for measuring an amplitude of the seat being rocked and a rocking motion of the seat.” According to Merriam Webster's Collegiate Dictionary Tenth Edition copyright 1997, amplitude refers to a “the extent of a vibratory movement (as of a pendulum) measured from a the mean position to an extreme.” The other variable being measured is the “rocking motion of the seat.” According to the specification page 17, section 72 detects a change in the rocking direction of the seat while section 74 measures the rocking amplitude of the seat. Damping factor is a dimensionless number and the rocking motion of the seat appears to be either positive or negative and also dimensionless. Multiplying two dimensionless numbers together will not produce either a time period or a distance. Applicant needs fix the language of the claim to make clear what is being claimed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(c), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beason 6,152,529 A in view of Charles et al. 6,330,837 A, Rogers 6,120,095 A and Kitadou et al. 6,494,850 A. Beason teaches a motorized rocking chair as shown in figure 1 powered by a rotary motor 50 as shown in figure 2 but does not disclose a solenoid means for rocking the chair or disclose an 1/f spectrum fluctuating computing circuit. Charles et al. teaches in column 10 lines 36-67 that rotary motors require mechanical linkages for producing linear motion while linear motors can provide superior operation. Since Charles et al. and Beason are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a linear motor for the purpose of providing reciprocal motion for a rocking chair in order to reduce the cost and maintenance requirements of a mechanical linkage.

See Charles et al. column 12 lines 1-5 for a description of a linear actuator that bi-directionally attracts a permanent magnet. Kitadou et al. teaches using changes in vibratory frequency and/or effective acceleration based on a  $1/f$  fluctuation pattern as described in column 5 lines 43-50 for the purpose of relaxing a person in a chair that vibrates at a desired frequency as described in column 13 lines 7-11 or that swings at a desired frequency as described in column 14 lines 11-36. Kitadou et al. does not disclose rocking motion applied at a desired frequency. Rogers teaches in column 1 lines 15  $\frac{1}{2}$  to 21  $\frac{1}{2}$  that rocking and gliding or swinging produce the same kind of back and forth motion that humans find to be relaxing. Since Rogers and Kitadou et al. are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a  $1/f$  fluctuation drive means in the device of Beason as modified by Charles et al. in order to make a relaxation device more relaxing. As for the computing circuit for computing a target value for  $1/f$  type spectrum fluctuation, see Kitadou et al. column 20 line 13 to column 21 line 3, particularly column 21 lines 1-3.

In regard to claim 6, see see Kitadou et al. column 5 lines 37-42 where 25 Hz and 12 Hz are both mentioned as upper limits on a initial value for a fluctuation circuit.

***Allowable Subject Matter***

Claims 1-4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not disclose or teach a target rocking motion

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input means separate from an 1/f spectrum fluctuation means where the drive means for a rocking device can be alternatively connected to one or the other of the target rocking motion input means and the spectrum fluctuation means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H Jones whose telephone number is 703-308-0115. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



JHJ 10/16/2003



**Nicholas Ponomarenko  
Primary Examiner  
Technology Center 2800**